

**Attachment 3.3-2**  
**Results of Supplemental Historical Data Gathering for the**  
**Tesla-Kasson and the Tesla-Manteca Transmission Lines**

The following information is a supplement to the data adequacy responses provided to the California Energy Commission (CEC) on September 19, 2001. After the September 19 data adequacy responses were prepared, URS Corporation compiled additional historical data regarding the Tesla-Kasson and Tesla-Manteca Transmission Lines. As noted in Section 3.3.1 of the supplement, the Tracy Peaker Project (TPP) now proposes to connect the power plant to the electrical grid by tying into the existing Tesla-Kasson Transmission Line, which crosses the 40-acre TPP site. No alteration to the existing transmission towers or to the Tesla-Kasson Line is proposed as part of the connection process.

In conformance with the request by the CEC, DPR 523A, 523B, and 523J forms are provided to record cultural resource TPP-5 (see Attachment 3.3-3). These forms evaluate TPP-5, which consists of three sets of two transmission towers that are part of a much longer electrical transmission tower system that extends 137 miles from the Stanislaus Power House to the city of San Francisco. In electric transmission systems, the term “line” usually refers to the metal wires carrying electric current, not to the towers that carry the metal wires. Therefore, several different “lines” can be attached to the same system of towers. The system of towers that is encompassed by TPP-5 includes the Tesla-Kasson, Tesla-Manteca, and Stanislaus-Newark Transmission Lines in the recorded location. The three sets of two towers (a total of six towers) that hold these transmission lines were originally constructed for the Stanislaus–Mission San Jose and Stanislaus–San Francisco Lines. The longer transmission tower system that the TPP-5 towers are part of is now referred to as the Stanislaus-Newark Circuits #1 and #2.

The Stanislaus-Newark circuits consist of two distinct sets of towers running parallel to one another that are separated by a distance of approximately 50 feet. Stanislaus-Newark Circuit #1 (on the north) was originally built in 1908 for the Stanislaus–Mission San Jose Line and now also holds the Tesla-Kasson Line at TPP-5.

Stanislaus–Newark Circuit #2 (on the south) was originally built in 1909–1910 to hold the Stanislaus–San Francisco Line and now also holds the Tesla-Manteca Line at TPP-5. The Tesla-Kasson Line runs from the Tesla Substation to the Kasson Substation, a total distance of approximately 16 miles. The Tesla-Manteca Line runs from the Tesla Substation to the Manteca Substation, a total distance of approximately 14 miles. The 115-kilovolt (kV) lines connecting the Tesla and Kasson Substations and the Tesla and Manteca Substations were first connected to the Stanislaus-Newark circuits in 1965.

Two of the three sets of transmission towers in TPP-5 appear to be intact examples of early long-distance transmission line towers. However, the center set of towers was replaced in 1988 with taller towers to accommodate the tie-in from the Owens-Illinois Substation to a wooden distribution line that runs parallel to Circuits #1 and #2. The wooden distribution line was constructed after 1981 (based on the new appearance of the poles and the fact that they are not depicted on the Tracy CA USGS 7.5-foot topographic map (photorevised 1981) or the Midway CA USGS 7.5-foot topographic map (photorevised 1980). The replacement of the center set of towers at TPP-5 and the addition of the wooden distribution line have greatly changed the original setting and design of Circuits #1 and #2. Therefore, the three sets of towers recorded for TPP-5 lack the integrity of their original design, original materials, and original setting. Also, these sets of towers are part of a larger tower system that lacks integrity and significance, as described below.

URS Corporation retained historian Laurence H. Shoup, Ph.D., to conduct a review of PG&E's historical records regarding these transmission lines (see Attachment 3.3-1 for Dr. Shoup's resume). Dr. Shoup's research, which was conducted on September 10–12, 2001, revealed a long history of maintenance and modifications to original Circuits #1 and #2. Over the past 70 years numerous towers have been replaced and relocated, transmission lines have been reconductored and upgraded in several areas, and thousands of insulators in the Tracy area have been replaced (JRP, 2000). Due to growth in population and electric demand along the systems route, new substations have been built that tapped into the Stanislaus-Newark circuits, changing the original configuration and design of the system. Specifically, along the three sets of towers

recorded for TPP-5, the Tesla-Kasson Line was tapped into in 1976, when PG&E installed a single-customer substation at the Owens-Illinois Glass Plant. In 1988 the Owens-Illinois Substation was expanded and the line was rerouted. At this time the center set of towers at TPP-5 was replaced by taller towers to accommodate a new transmission line running from the Owens-Illinois Substation to a modern distribution line that runs parallel to Stanislaus-Newark Circuits #1 and #2.

JRP Historical Consulting Services recorded a 17-mile-long portion of the Stanislaus-Newark Circuits #1 and #2 in a location approximately 4 miles west of TTP-5. JRP assessed the significance of that segment based on extensive historical research on the entire 137-mile tower system. JRP concluded that Stanislaus-Newark Circuits #1 and #2 do not appear to be eligible for listing in the California Register of Historic Resources (CRHR). The following significance evaluation of TPP-5 is based on the significance evaluation from the JRP report on Circuits #1 and #2 (this report is pending formal filing).

The entire length of Stanislaus-Newark Circuits #1 and #2, of which TTP-5 is a small part, does not appear eligible for listing under Criterion A because it has not “made a significant contribution to the broad patterns of our history.” This tower system was not the first to carry high-voltage electricity over a great distance, nor was it the first to use steel towers rather than wooden ones. On the contrary, Stanislaus-Newark Circuits #1 and #2 are typical examples of transmission lines for their period, utilizing commonly accepted technology and engineering principles that were the result of nearly three decades of development (JRP, 2000).

Furthermore, the system does not appear to qualify for listing under Criterion B because it has no known associations with persons important to our history. The potential for eligibility lies with the transmission systems associated with John Debo Galloway, a prominent figure in early hydroelectric development in California. It is possible that he designed the towers used in Circuits #1 and #2. This association, however, is not well documented and is speculative at best. Therefore, Stanislaus-

Newark Circuits #1 and #2 do not appear to meet the eligibility requirements of Criterion B (JRP, 2000).

Under Criterion C the tower system does not appear to be eligible for listing because it does not have distinctive or pioneering engineering features, nor is it the work of a master designer. The tower system does not appear eligible for listing under Criterion D because it does not appear to be a principal source of important information about historic construction materials or technologies. The towers were commonplace prefabricated structures of a standard design (JRP, 2000).

The TPP tie-in to the Tesla-Kasson Transmission Line would not alter the integrity of TPP-5 or the entire Stanislaus-Newark Circuits #1 and #2 transmission system. The system already lacks integrity and is not a significant resource as defined in Section 15064.6 of the California Environmental Quality Act (CEQA). Therefore, the TPP transmission line tie-in will not have any significant direct or indirect effect on the Tesla-Kasson Line, the TPP-5 transmission towers, or the entire Stanislaus-Newark Circuits #1 and #2 transmission system.

Formal recordation forms will be filed with the Central California Information Center to document the transmission line segment encompassed by TPP-5.

### *References*

JRP, 2000. *Historic Resources Inventory and Evaluation Report, Transmission Lines in the Stanislaus Corridor, Alameda County, California*. JRP Historical Consulting Services, October.